

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A process for making a polymeric product having a gradual variation in modulus through at least a portion of the product, comprising the steps of:

(a) reacting at least one of a multifunctional isocyanate, a polyol and a chain extender, wherein at least two reagents selected from the isocyanate, the polyol, the chain extender, any mixture thereof and any pre-polymer formed therefrom, are intensively mixed to form a first polyurethane having a predetermined stoichiometry and thermal history;

(b) reacting at least one of a multifunctional isocyanate, a polyol and a chain extender, wherein at least two reagents selected from the isocyanate, the polyol, the chain extender, any mixture thereof and any pre-polymer formed therefrom, are intensively mixed to form a second polyurethane having a predetermined stoichiometry and thermal history which is different to the stoichiometry and thermal history of the first polyurethane; and

(c) injecting the first and second polyurethanes into a mould defining the polymeric product before the polymerization reactions associated with the production of the first and second polyurethanes are complete so that polymerization reactions between the first and second polyurethanes occur in the mould,

wherein the product has a gradual variation in modulus through at least a portion of the product.

2. (Original) A process according to claim 1, comprising the step of injecting the first and second polyurethanes into the mould simultaneously.

3. (Original) A process according to claim 2, comprising the step of altering the relative rate of injection of the first polyurethane into the mould relative to the rate of injection of the second polyurethane into the mould.

4. (Original) A process according to claim 1, including the step of mixing the first and second polyurethanes prior to injection into the mould via a common injection port.
5. (Original) A process according to claim 4, including the step of altering the length of the common injection port to control the degree of mixing of the first and second polyurethanes prior to injection into the mould.
6. (Previously Presented) A process according to claim 1, including the step of controlling the relative amounts of the first and second polyurethanes injected into the mould.
7. (Original) A process according to claim 6, including the step of injecting the same amount of the first and second polyurethanes in to the mould.
8. (Previously Presented) A process according to claim 1, wherein the method includes the step of forming the first and second polyurethanes simultaneously in a separate apparatus.
9. (Previously Presented) A process according to claim 1, wherein the method includes the step of forming the first and second polyurethanes using the same apparatus, the method comprising the steps of forming the first polyurethane and subsequently perturbing the relative amounts of the reagents to form the second polyurethane.
10. (Original) A process according to claim 9, including the step of passing the first polyurethane into an intermediate vessel before formation of the second polyurethane.
11. (Original) A process according to claim 10, wherein the method includes the step of passing the second polyurethane into an intermediate vessel.

12. (Previously Presented) A process according to claim 11, including the step of simultaneously injecting the first and second polyurethanes into the mould from said intermediate vessels.

13. (Previously Presented) A process according to claim 12, including the step of injecting the first and second polyurethanes into the mould at different injection rates.

14. (Previously Presented) A process according to claim 13, wherein the method includes the step of controlling the temperature of at least one of the intermediate vessels to impart at least one of a different stoichiometry and thermal history to the first and second polyurethanes contained herein.

15-71. (Cancelled)

72. (New) A process according to claim 1, wherein the gradual variation in modulus varies substantially linearly through the portion.